APPARATUS AND METHOD FOR CACHING LOOKUPS
BASED UPON TCP TRAFFIC FLOW CHARACTERISTICS

ABSTRACT

The classification system of a network device includes a cache in which a

5 mapping between predefined characteristics of TCP/IP packets and associated actions

are stored in response to the first "Frequent Flyer" packet in of a session. Selected

characteristics from subsequent received packets of that session are correlated with the

predefined characteristics and the stored actions are applied to the received packets if

the selected characteristics and the predefined characteristics match, thus reducing the

10 processing required for subsequent packets. The packets selected for caching may be

data packets. For mismatched characteristics, the full packet search of the

classification system is used to determine the action to apply to the received packet.